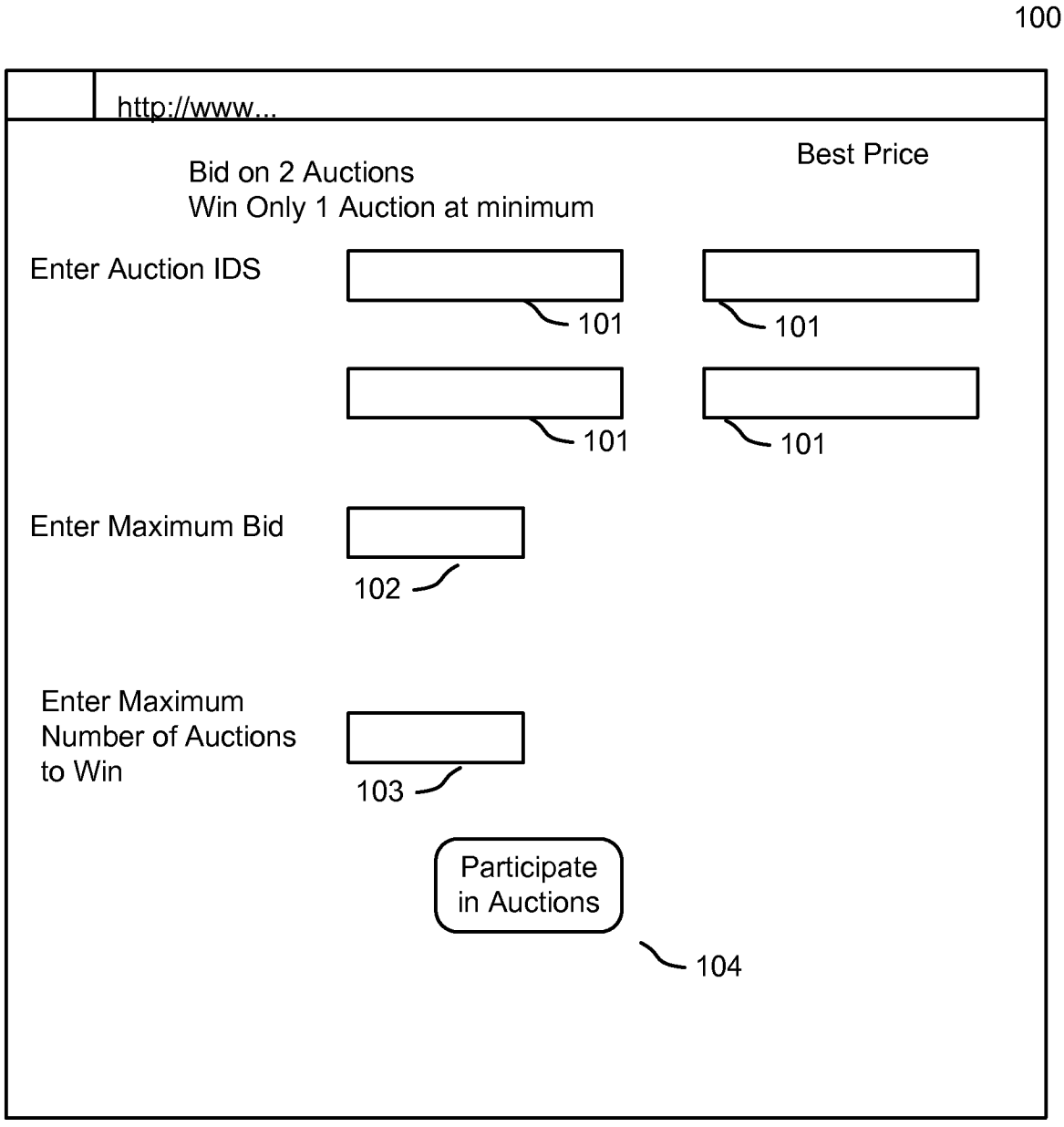
100
http://www...
Best Price
Bid on 2 Auctions
Win Only 1 Auction at minimum
Enter Auction IDS
101
101
101
101
Enter Maximum Bid
102
Enter Maximum
Number of Auctions
to Win
103
Participate
in Auctions
104

Fig. 1

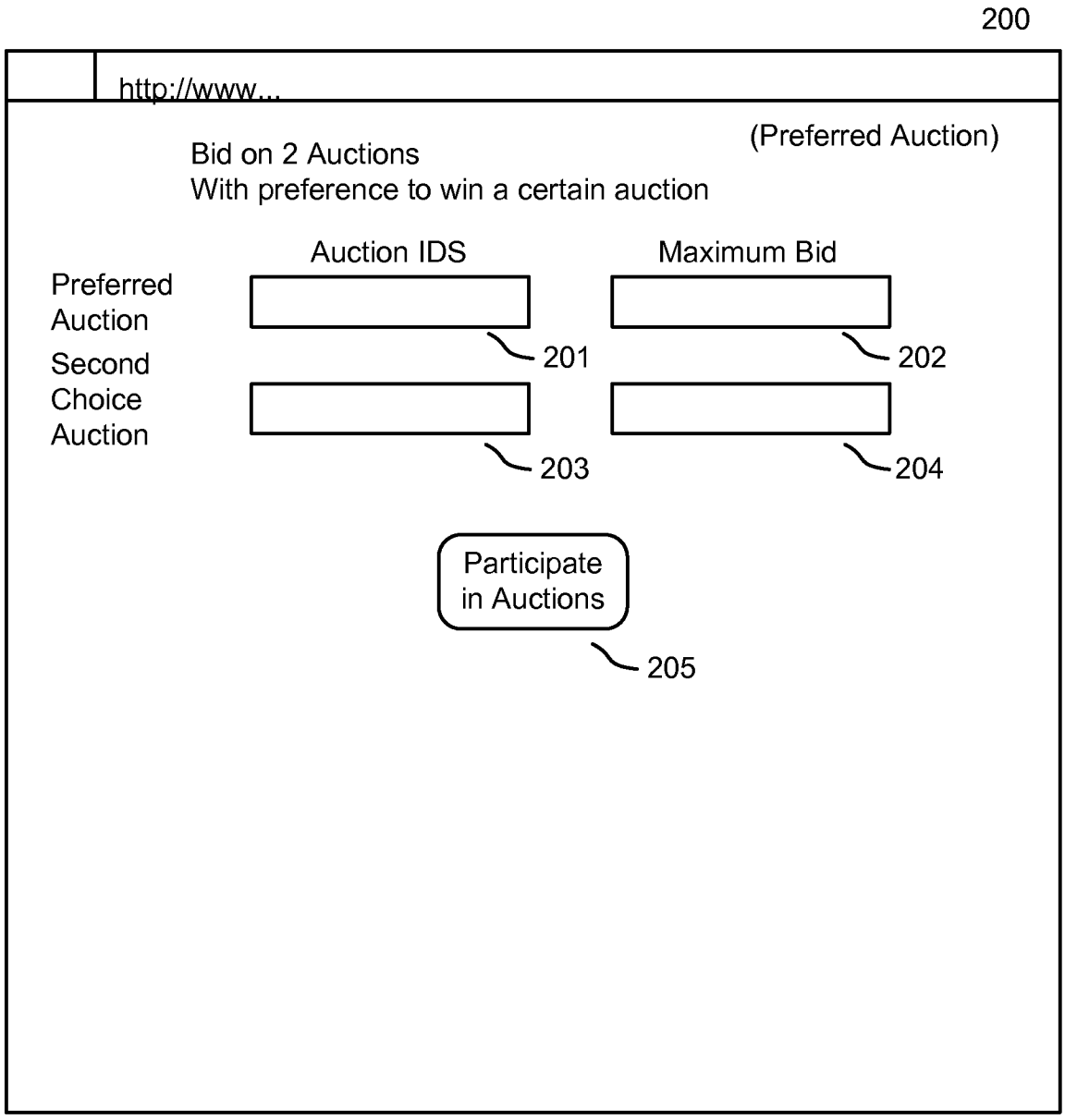
200
http://www...
(Preferred Auction)
Bid on 2 Auctions
With preference to win a certain auction
Auction IDS
Maximum Bid
Preferred Auction
Second Choice Auction
201
202
203
204
Participate in Auctions
205

Fig. 2

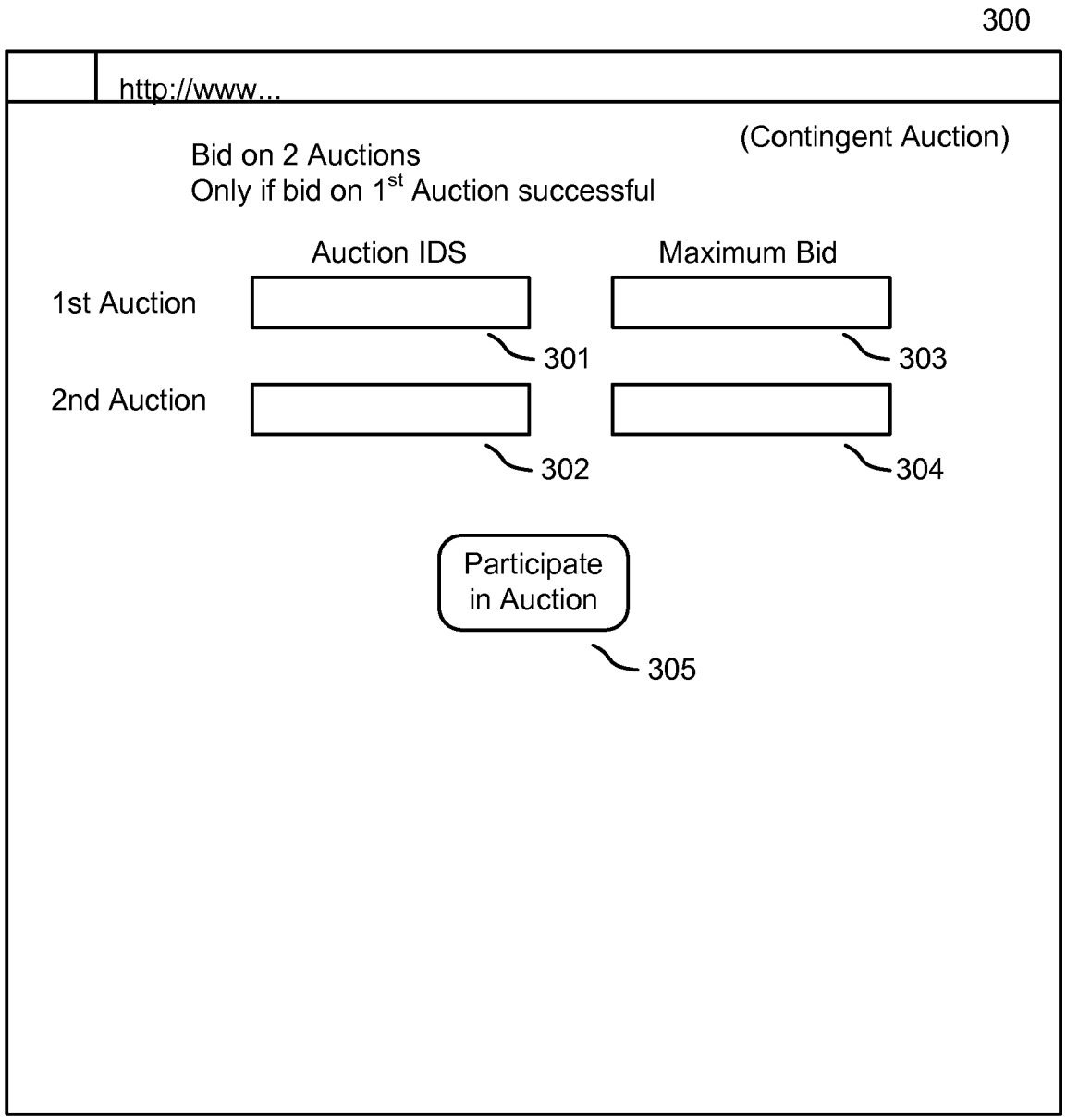
300
http://www...
(Contingent Auction)
Bid on 2 Auctions
Only if bid on 1st Auction successful
Auction IDS
Maximum Bid
1st Auction
301
303
2nd Auction
302
304
Participate in Auction
305

Fig. 3

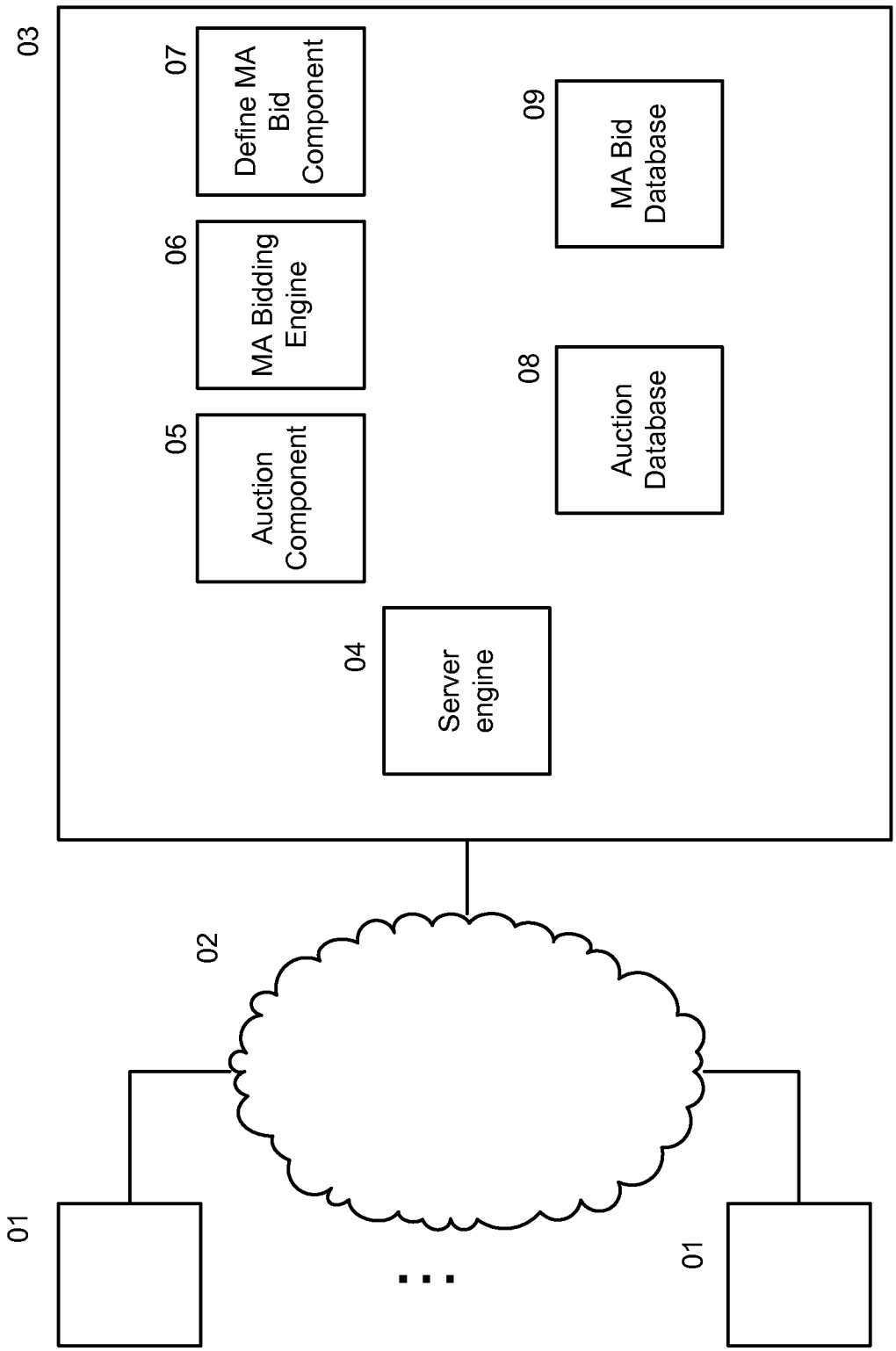
03
07
Define MA Bid Component
06
MA Bidding Engine
05
Auction Component
04
Server engine
09
MA Bid Database
08
Auction Database
02
01
...
01

Fig. 4

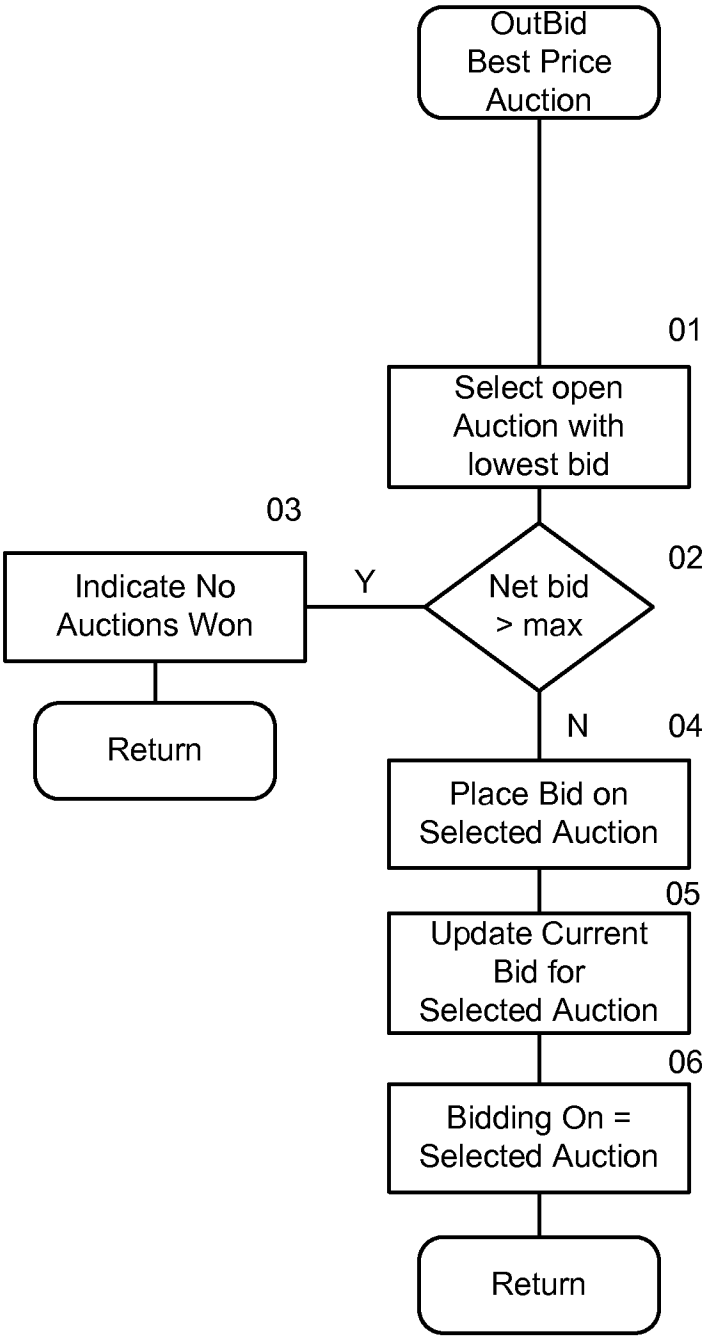
OutBid
Best Price
Auction
01
Select open
Auction with
lowest bid
03
02
Indicate No
Auctions Won
Y
Net bid
> max
Return
N
04
Place Bid on
Selected Auction
05
Update Current
Bid for
Selected Auction
06
Bidding On =
Selected Auction
Return

Fig. 5

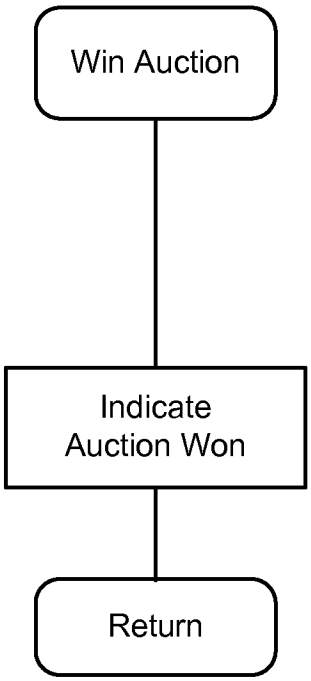

Fig. 6

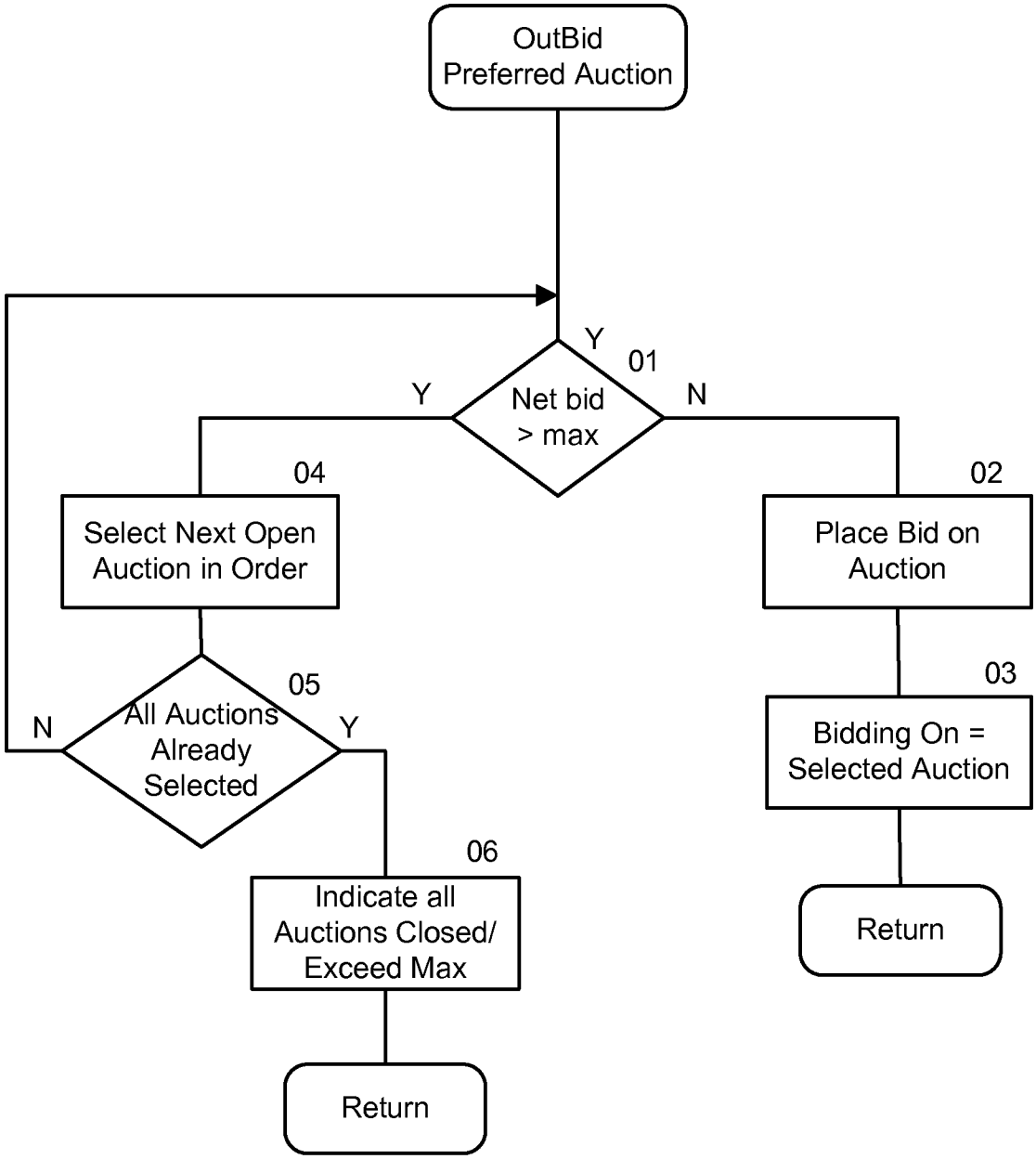
OutBid
Preferred Auction
Y
01
Y
Net bid
> max
N
04
02
Select Next Open
Auction in Order
Place Bid on
Auction
05
03
N
All Auctions
Already
Selected
Y
Bidding On =
Selected Auction
06
Indicate all
Auctions Closed/
Exceed Max
Return
Return

Fig. 7

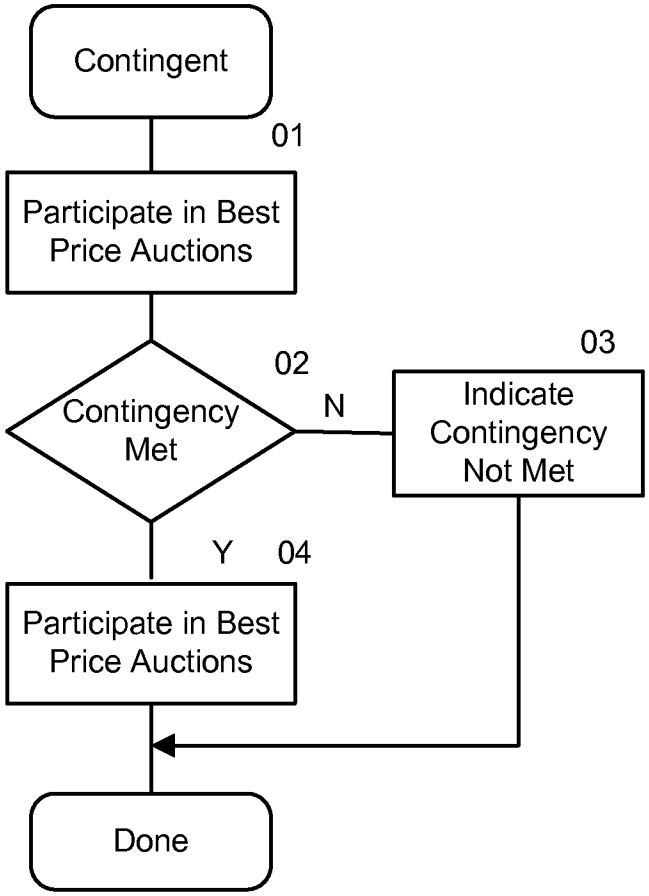
Contingent
01
Participate in Best Price Auctions
02
Contingency Met
N
03
Indicate Contingency Not Met
Y
04
Participate in Best Price Auctions
Done

Fig. 8

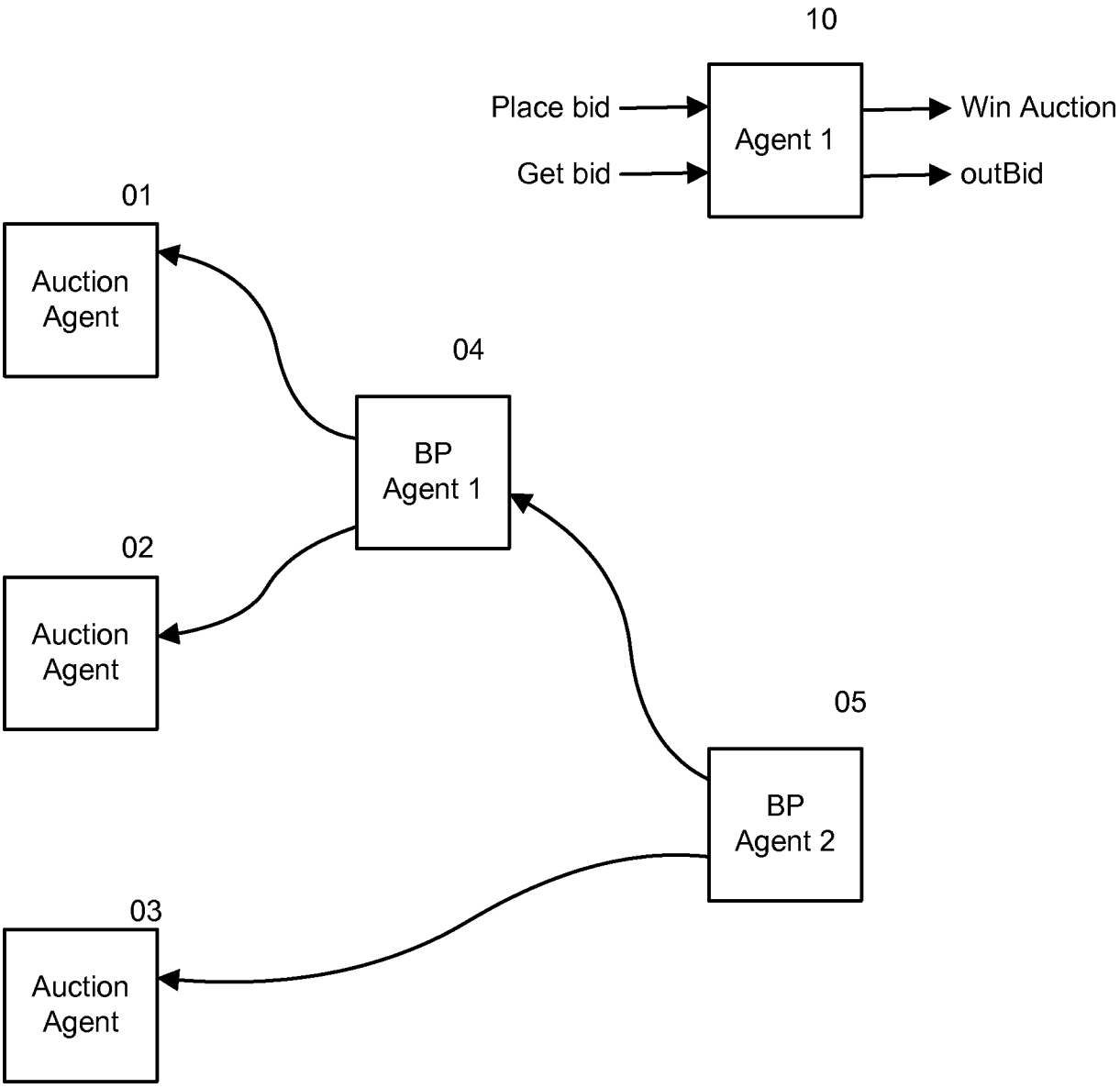
10
Place bid
Get bid
Agent 1
Win Auction
outBid
01
Auction Agent
04
BP Agent 1
02
Auction Agent
05
BP Agent 2
03
Auction Agent

Fig. 9

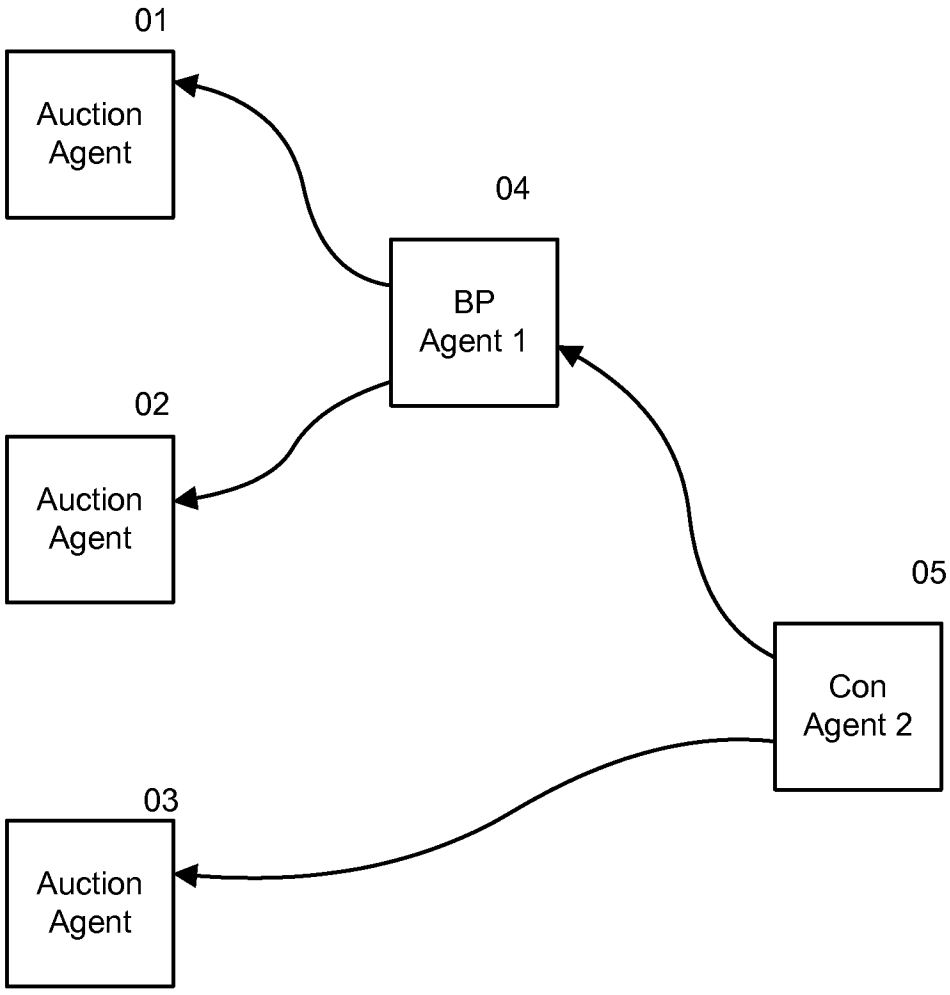
01
Auction Agent
04
BP Agent 1
02
Auction Agent
05
Con Agent 2
03
Auction Agent

Fig. 10

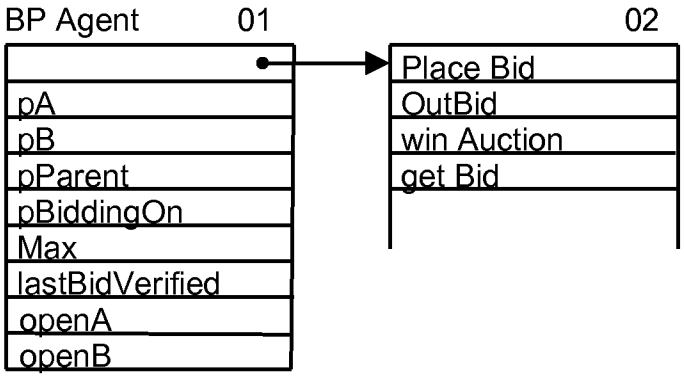
BP Agent
01
02
Place Bid
OutBid
win Auction
get Bid
pA
pB
pParent
pBiddingOn
Max
lastBidVerified
openA
openB

Fig. 11

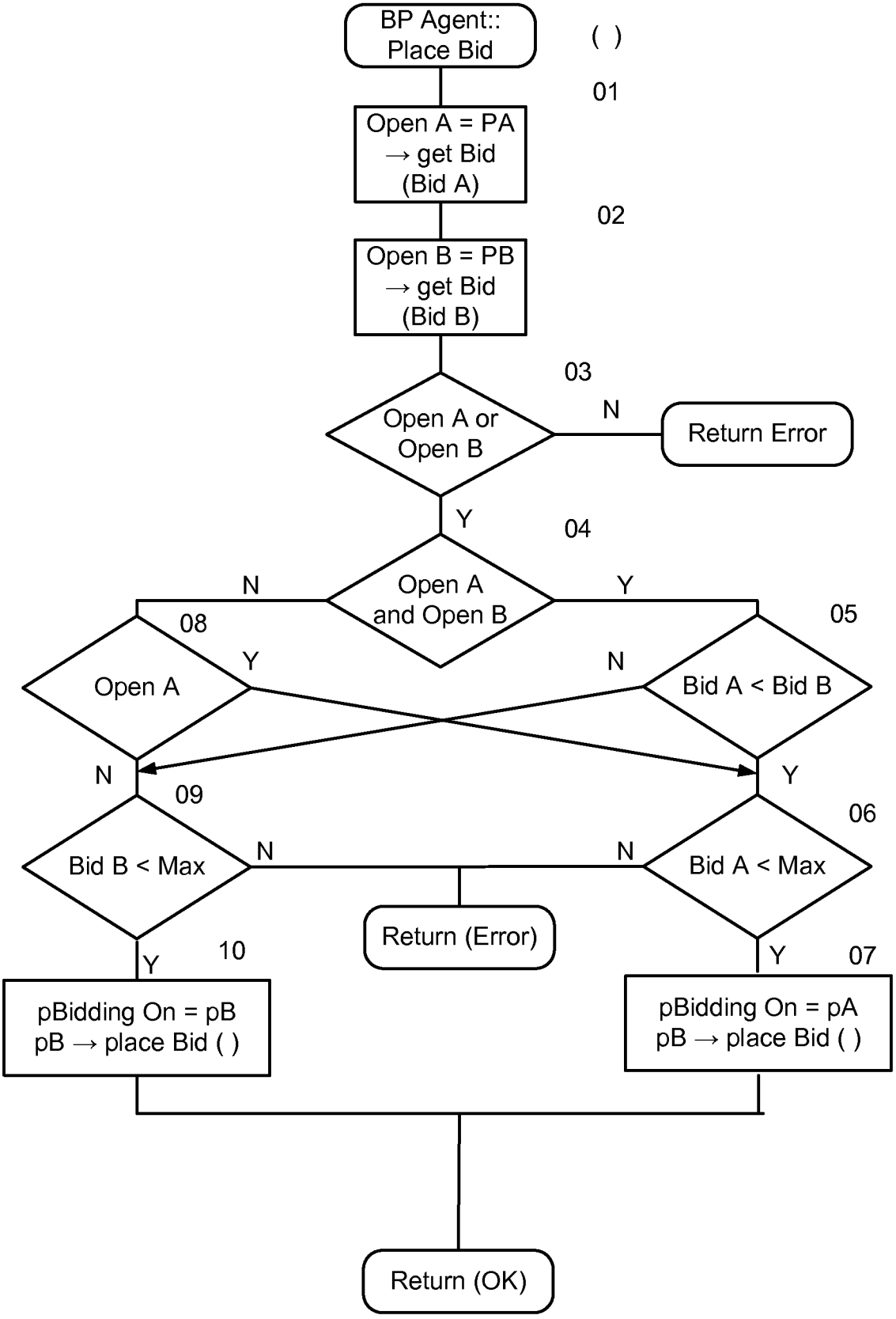
BP Agent::
Place Bid
( )
01
Open A = PA
→ get Bid
(Bid A)
02
Open B = PB
→ get Bid
(Bid B)
03
Open A or
Open B
N
Return Error
Y
04
Open A
and Open B
N
Y
08
05
Open A
Y
N
Bid A < Bid B
N
Y
09
06
Bid B < Max
N
N
Bid A < Max
Return (Error)
Y
10
Y
07
pBidding On = pB
pB → place Bid ( )
pBidding On = pA
pB → place Bid ( )
Return (OK)

Fig. 12

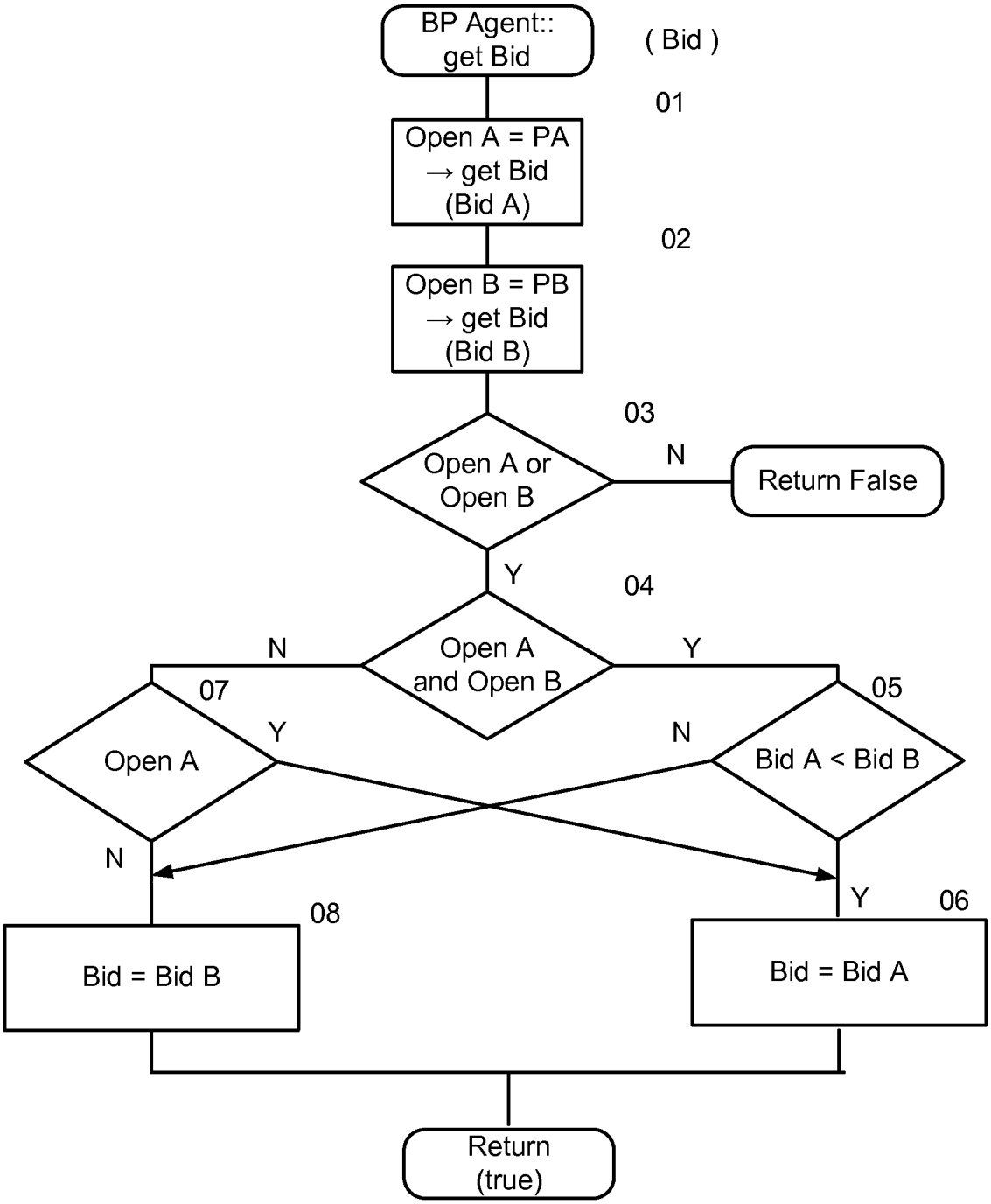
BP Agent::
get Bid
(Bid)
01
Open A = PA
→ get Bid
(Bid A)
02
Open B = PB
→ get Bid
(Bid B)
03
Open A or
Open B
N
Return False
Y
04
Open A
and Open B
N
Y
07
05
Open A
Y
N
Bid A < Bid B
N
Y
06
08
Bid = Bid B
Bid = Bid A
Return
(true)

Fig. 13

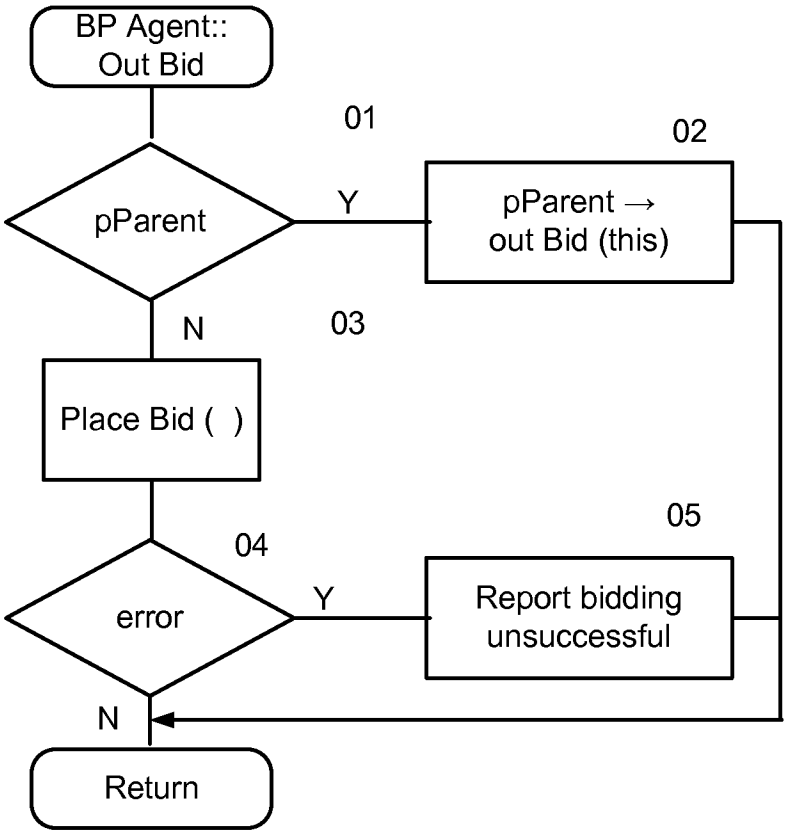
BP Agent::
Out Bid
01
02
pParent
Y
pParent →
out Bid (this)
N
03
Place Bid ( )
05
04
error
Y
Report bidding
unsuccessful
N
Return

Fig. 14

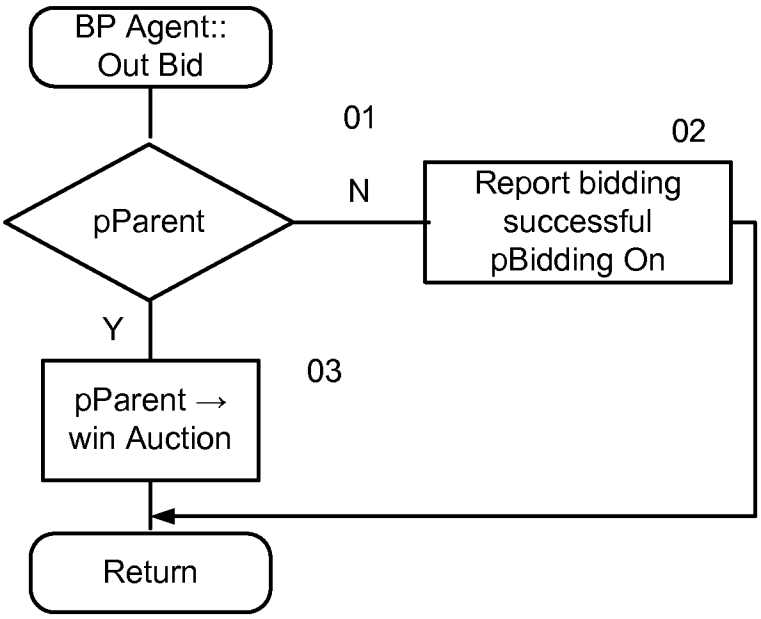
BP Agent::
Out Bid
01
02
pParent
N
Report bidding
successful
pBidding On
Y
03
pParent →
win Auction
Return

Fig. 15